

REMARKS

The present Amendment amends claims 68, 72, 74, 78, 85, 93, 96, 103, 104, 115 and 118 and leaves the remaining claims unchanged. Therefore, the present application has pending claims 13, 17, 22, 39, 60, 67, 68 and 71-119.

Claims 13, 22, 67, 71, 75-77, 80-84, 86-92, 94, 95, 97-103, 105-114, 116, 117 and 119 stand rejected under 35 USC §103(a) as being unpatentable over Saka (U.S. Patent No. 5,760,699) in view of Blanchette (U.S. Patent No. 6,094,429). This rejection is traversed for the following reasons. Applicants submit that the features of the present invention as now recited in claims these claims are not taught or suggested by Saka or Blanchette whether taken individually or in combination with any of the other references of record. Therefore, Applicants respectfully request the Examiner to reconsider and withdraw this rejection.

The features of the present invention as recited in the claims are not taught or suggested by Saka or Blanchette whether taken individually or in combination with each other as suggested by the Examiner. In fact, Applicants submit that Saka and Blanchette cannot be combined in the manner suggested by the Examiner being that they are each directed to non-analogous art.

The present invention relates to the maintenance of synchronization between a transmitter and a receiver. The transmitter transmits a special sequence of intermittent messages as illustrated in Fig 5. The special sequence includes regularly intervalled groups of messages, and each group includes regularly intervalled messages. The invention allows the sequence of intermittent messages to be varied and the receiver to be informed of the variation. All of the independent claims recite

corresponding features.

Saka discloses a simple low-cost page receiver (cal. 2, lines 48-50) that conserves power (cal. 2, lines 53-54). This receiver works with a specific, unchanging signal format, namely the POCSAG signal system (col. 1, lines 18-26). The receiver is designed to be able to maintain synchronization when the POCSAG signal is interrupted, without having to wait until the next POCSAG signal (cal. 2, lines 48-54). This is achieved by using the first timing generating circuit 7 to periodically enable both the switch circuit 9 and the sync code detecting circuit 4 (cal. 8, lines 35-44). The receiver is also designed to simultaneously detect both a sync code and preamble, when a new signal arrives (col. 2, lines 55-59, cal. 9, lines 30-32; cal. 8).

It is important to note the structure of the POCSAG signal. It is a continuous series of differently sized elements, namely Preamble, sync code, paging. There are no intervals between the elements. Furthermore, it appears that there is no regular structure to the transmission of POCSAG signals as the page receiver is designed to detect the preamble of a new POCSAG signal while it is detecting the sync code of a current incoming POCSAG signal (col. 2, lines 55-58).

Blanchette discloses a complex, high specification mobile station operable in a TDMA communications system such as GSM (cal. 3, lines 48-51). The mobile station reads information defining a packet data seed channel from a control channel. The mobile station then reads the packet data seed channel to obtain a DCAP slot. The DCAP slot comprises a bit map of all the time slots of the next packet data frame, and indicates which of those are assigned to the packet data

channel. The slots of the packet data channel are assigned dynamically to those slots that are available in the packet data frame. The network is therefore able to dynamically assign available slots of the packet data frame to the packet data channel as illustrated in Fig. 3.

It is important to note that the purpose of DCAP is not to maintain synchronization but to inform the mobile station of which slots are part of the packet data channel. The slots of the packet data frame follow one after the other without interruption and the slots of the packet data channel are dynamically assigned by every DCAP slot. Therefore, there is no interval at all between packet data frames ("groups of messages" in the claims) and certainly no regular interval ("first period of time" in the claims). There is not necessarily any interval between slots of the packet data channel, and there will not be any regular interval between the slots as this defeats the purpose of dynamic allocation of available slots.

Thus, based on the above, there would be no motivation to combine the teachings of Saka and Blanchette in the manner suggested by the Examiner. Saka relates to a simple, low cost page receiver with low power consumption, whereas Blanchette relates to a complex mobile station operable in a multi-channel communications system. The introduction of any circuitry from Blanchette into Saka would increase costs, reduce simplicity and increase power consumption and would therefore be rejected by those of ordinary skill in the art.

Furthermore, Saka relates to synchronization using the POCSAG system which is a data transmission protocol primarily used in paging systems, whereas Blanchette relates to dynamically allocating a packet data channel in the GSM

system which a cellular radio communication protocol primarily used for transmitting voice communications, although some data communication can be conducted. The two systems are incompatible and one of ordinary skill in the art would not seek to improve synchronization in the POCSAG system by incorporating teachings from GSM system as they are completely different in terms of operation and complexity.

In addition, Blanchette relates to a dynamic, flexible system which operates on the basis that a time slot of the packet data channel can occur at any time so long as the receiving mobile station is pre-informed. This contrasts with the teaching of SAKA which is directed to an inflexible message structure, as illustrated in Fig. 2. The messaging systems would therefore be seen as incompatible.

Thus, it is quite clear from the above that Blanchette cannot be combined with Saka in the manner suggested by the Examiner being that they are each directed to non-analogous art. Therefore, the combination of Saka and Blanchette as suggested by the Examiner would be impossible and therefore could not be the basis for alleging that the features of the present invention as recited in the claims are obvious under 35 USC §103.

Even if Saka and Blanchette can be combined as suggested by the Examiner, such a combination could be made the combination would still be deficient of numerous features of the present invention as recited in the claims.

Further, in the Office Action, the examiner appears to be incorrect in his interpretation of Saka. His interpretation appears to be that the PREAMBLE, SC and PAGING signals of the POCSAG signal illustrated in Fig. 2 are each a "message" and collectively they are a group of "messages".

With regard to independent claims 13, 22, 67, 71, 83, 94, 114 and 117, Saka does not disclose an intermittent sequence of messages i.e. messages that stop and start at intervals. Fig. 2 of Saka and the accompanying description illustrate that the "messages" PREAMBLE, SC, PAGING are joined without interruption or interval. Consequently they are not an intermittent sequence of messages because they are a continuous sequence.

Each of independent claims 67, 71, 83, 94, 114 and 117 further define the intermittent sequence of messages by the terms "first period of time" (interval between adjacent groups) and "second period of time" (common interval between messages of a group). It can be seen in Fig. 2 of Saka that the time durations between the beginning of PREAMBLE, SC and PAGING are not the same and cannot be the constant "second period of time". Saka does not disclose the repeated regular transmission of the POCSAG signal and therefore does not disclose the "first period of time".

Claim 13 has as additional novel features such as "control information for effecting synchronization, including timing information, wherein said timing information is dependent upon when the transmission of a following message in the sequence occurs."

The Examiner equates the Preamble of the POCSAG signal to "control information for effecting synchronization" and acknowledges that Saka fails to disclose timing information. However, it is more correct to say that Saka fails to disclose control information (for effecting synchronization) including timing information. It is important to note that the claim requires "control information for

effecting synchronization, including timing information...". That is, the control information effects synchronization and is used to know when a following message in the sequence occurs. Blanchette, in contrast, discloses the dynamic allocation of time slots in a packet data channel by informing the mobile station using DCAP which time slots of the next packet data frame comprise the packet data channel. Blanchette is not concerned at all with synchronization. It does not therefore disclose "control information for effecting synchronization, including timing information...". There would be no reason to try and combine the PREAMBLE of POCSAG with DCAP of Blanchette and it is not clear if or how this could be done. Such combination would make the device very complex and increase power consumption which is contrary to the teaching of Saka.

With respect to the limitation "control information identifies the messages as broadcasted messages" as recited in claim 13, the Examiner states that the base station of Saka is broadcasting the signal to all mobiles. Even if that is correct, there is no disclosure that the signal identifies itself as a broadcast signal. There is no requirement for this as all the signals are broadcast signals. Furthermore there is no disclosure that the Preamble, which the Examiner equates with both a "message" and "control information" identifies the message (the preamble) as a broadcast message broadcasted preamble). The DCAP of Blanchette does not identify itself as a broadcast message either. Consequently, as neither document discloses this feature the combination of their teachings cannot result in this feature.

Claim 22 has as additional novel features including "an accessory for a mobile communications device". The Examiner has failed to give this claim limitation

proper weight. Neither Saka, nor Blanchette disclose an accessory for a mobile communications device. Both Saka and Blanchette are concerned with mobile communications devices per se that are communicating in a mobile telecommunications network. It would not be obvious to accessorize such a device as it would require the replication of the circuitry of the device itself.

Further, as per claim 22, the limitation “control information for effecting synchronization, including timing information, wherein said timing information is dependent upon when the transmission of a following message in the sequence occurs. Is not taught or suggested by Saka and/or Blanchette

Claim 67 has as additional novel features including “control messages which inform ... of a variation in said sequence of intermittent messages”. This feature must be read in the light of the definition of ‘sequence of intermittent messages’, which is clearly defined as a sequence with regular structure. This feature therefore relates to the variation of that regular structure. The variation of a regular structure of messages is not disclosed in either Saka or Blanchette. In Blanchette, the bitmap in DCAP is necessary precisely because there is no regularity of structure.

Further, claim 67 recites “control information for effecting synchronization, after said variation, including parameters for informing variation in any one or more of the first period of time, the second period of time and the number of messages in a group”. These parameters define the regular structure of the intermittent sequence. Neither Saka or Blanchette discloses such parameters. There is no disclosure in either of Saka or Blanchette of the maintenance of synchronization after the variation of a sequence of messages, as defined in the claim 67.

Claim 71 has the additional novel features including "synchronizing a clock in a receiver to a clock in a transmitter" Neither Saka or Blanchette disclose the synchronization of clocks in the receiver and transmitter. Saka merely discloses the resetting of a counter in the receiver.

Claim 71 further recites "control means arranged to provide, when there is a variation in the sequence of messages, control information", "control information ..that informs the at least one receiver of a variation in the sequence of messages, and thereby maintains, after the variation, the synchronization of the clock in the receiver to the clock in the transmitter" and "control information including one or more parameters for informing a variation in any one or more of the first period of time, the second period of time and the number of messages in a group". These features are also not taught or suggested by Saka and/or Blanchette.

Claims 83, 94, 114 and 117 have the additional novel features including the interrelationship of clock and control means, the synchronizing of the clock, control information indicative of a variation in the sequence of intermittent messages, and disable/power conserve in dependence upon the intermittent sequence and any variation thereof, to enable reception of a message in each group.

Neither Saka and/or Blanchette teach or suggest the variation of an intermittent sequence as in the present invention. Blanchette is not concerned at all with the variation of message sequences and Saka uses a fixed POCSAG signal format.

Thus, the above noted deficiencies of Saka are not supplied by Blanchette. Therefore, combining the teachings of Saka and Blanchette in the manner suggested

by the Examiner still fails to teach or suggest the features of the present invention. Therefore, reconsideration and withdrawal of the 35 USC §103(a) rejection of the claims as being unpatentable over Saka and Blanchette is respectfully requested.

The remaining references of record have been studied. Applicants submit that they do not supply any of the deficiencies noted above with respect to the references utilized in the rejection of claims 13, 22, 67, 71, 75-77, 80-84, 86-92, 94, 95, 97-103, 105-114, 116, 117 and 119.

In view of the foregoing amendments and remarks, Applicants submit that claims 13, 17, 22, 39, 60, 67, 68 and 71-119 are in condition for allowance. Accordingly, early allowance of claims 13, 17, 22, 39, 60, 67, 68 and 71-119 is respectfully requested.

To the extent necessary, the applicants petition for an extension of time under 37 CFR 1.136. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, or credit any overpayment of fees, to the deposit account of Antonelli, Terry, Stout & Kraus, LLP, Deposit Account No. 01-2135 (1156.41270X00).

Respectfully submitted,

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